

<b>Notice of Allowability</b>	Application No.	Applicant(s)	
	10/735,999	WEARE, CHRISTOPHER	
	Examiner	Art Unit	
	Kuen S. Lu	2167	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE and Amendment filed 5/7/2007.
2. ☒ The allowed claim(s) is/are 1-2, 5-6, 8-14, 29-30, 33-34 and 36-43 (renumbered to 1-23).
3. ☐ The drawings filed on \_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                                    |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>10/26/2007</u> . |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date <u>10/25/2007</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                                 | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                           |
|  | 9. <input type="checkbox"/> Other _____.   |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.
2. The Action is responsive to Applicants' Amendment and RCE filed May 7, 2007.

### ***Information Disclosure Statement***

3. Information Disclosure Statements filed October 25, 2007 are considered and corresponding PTO-1449s are electronically signed as attached.
4. After a thorough search and examination of the present application, and in light of the following:  
prior art made of record;  
Examiner's Amendments made October 26, 2007 that was authorized to amend claims 1, 3-5, 29 and 31-33; and  
an update search on prior art conducted in domains (EAST, NPL-ACM, Google, NPL-IEEE, etc);  
Claims 1-2, 5-6, 8-14, 29-30, 33-34 and 36-43 (renumbered to 1-23) are allowed.

***Examiner's Amendments***

5. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee. Authorization for this Examiner's Amendments, listed below was given on October 26, 2007 in a telephone interview with Mr. Sung T. Kim, Registration Number 45,398.

5.1. Please amend claims 1, 3-5, 29 and 31-33 as follows:

1. (Currently Amended) A method for dynamically updating a collection of information in a database including a plurality of pre-existing clusters of information for publication comprising:

a) extracting from received information a set of characterizing features which characterize the received information,

wherein said received information comprises multiple features of a given type  
and

wherein the multiple features are ranked in importance as the features are  
extracted;

b) updating the collection of information by grouping the received information with one or more pre-existing clusters in the collection that have characterizing features in common with the received information and grouping together a plurality of pre-existing clusters having common characteristics to produce a neighborhood of clusters,

wherein each of the one or more pre-existing clusters includes a set of characterizing features which characterize the cluster,

wherein the received information is grouped with a pre-existing cluster if an inner product of the features that characterize the received information and the features that characterize the pre-existing cluster exceeds a threshold; and

c) publishing at least a portion of the updated collection of information of the neighborhood of clusters based on a customer request for information.

3. (Canceled)

4. (Canceled)

5. (Currently Amended) The method of claim 13 wherein a number of features of rank of a newly received item of information are compared with a corresponding number of features of a cluster to determine if said information is added to a cluster.

29. (Currently Amended) A computer readable storage medium containing instructions for executing a method for dynamically updating a collection of information in a database including a plurality of pre-existing clusters of information for publication, the method comprising:

a) extracting from received information a set of characterizing features which characterize the received information,

wherein said received information comprises multiple features of a given type  
and

wherein the multiple features are ranked in importance as the features are  
extracted;

b) updating the collection of information by grouping the received information with one or more pre-existing clusters in the collection that have characterizing features in common with the received information and grouping together a plurality of pre-existing clusters having common characteristics to produce a neighborhood of clusters,

wherein each of the one or more pre-existing clusters includes a set of  
characterizing features which characterize the cluster,

wherein the received information is grouped with a pre-existing cluster if an inner  
product of the features that characterize the received information and the features that  
characterize the pre-existing cluster exceeds a threshold; and

c) publishing at least a portion of the updated collection of information of the  
neighborhood of clusters based on a customer request for information.

31. (Canceled)

32. (Canceled)

33. (Currently Amended) The computer readable storage medium of claim ~~34~~29  
wherein a number of features of rank of a newly received item of information are

compared with a corresponding number of features of a cluster to determine if said information is added to a cluster.

***Reason for Allowable***

6. The following is the Examiner's statement of reasons for allowance:

In the Examiner's Office Action, dated February 7, 2007, the Final Rejection under 35 U.S.C. § 103 rejections was made mainly based on the reference of Kubota:

"INFORMATION SEARCH METHOD, INFORMATION SEARCH DEVICE, AND STORAGE MEDIUM FOR STORING AN INFORMATION SEARCH PROGRAM", U.S. Patent 6,041,323, issued March 21, 2000; and further in view of Charnock et al.: "METHOD AND APPARATUS FOR SOCIOLOGICAL DATA MINING", U.S. Patent Application 2003/0182310, published September 25, 2003, hereafter "Charnock".

In a response to the Office Action of August 20, 2007, Applicant argued that Kubota and Charnock et al., alone or in combination, fail to disclose or suggest the elements of updating a collection of information by grouping received information with one or more pre-existing clusters in the collection that have characterizing features in common with Based on the argument, the subject matter as described and described in the Examiner's Amendments in which the received information comprises multiple features of a given type and the multiple features are ranked in importance as the features are extracted, the updating of information is performed by grouping the information with pre-existing clusters having characterizing common features with the received information, clusters having common characteristics are grouped into a neighborhood and the

grouping is performed by calculating an inner product of the features that characterize the received information and the features that characterize the cluster; and updated collection of information is published from the neighborhood of clusters. Examiner is persuaded that the subject matter described above and included in each of the amended independent claims 1 and 29 clearly distinguishes from prior art.

An update search on prior art in domains (EAST, NPL-ACM, Google, NPL-IEEE, etc) has been conducted. The prior art searched and investigated in the domains (EAST, NPL-ACM, Google, NPL-IEEE, etc) do not fairly teach or suggest teaching of the subject matter as described by the combined limitation in each of the independent claims 1 and 29.

Claims (2, 5-6, 8-14 and 42) and (30, 33-34, 36-41 and 43) are directly or indirectly dependent upon the independent claims 1 and 29, and are also distinct from the prior arts for the same reason.

After a search and a thorough examination of the present Application and in light of the prior arts, Claims 1-2, 5-6, 8-14, 29-30, 33-34 and 36-43 (renumbered to 1-23) are allowed.

### ***Conclusions***

7. Any comments considered necessary by Applicants must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

***Contact Information***

8. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Kuen S. Lu whose telephone number is (571)-272-4114. The examiner can normally be reached on Monday-Friday (8:00 am-5:00 pm). If attempts to reach the examiner by telephone pre unsuccessful, the examiner's Supervisor, John Cottingham can be reached on (571)-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for Page 13 published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-27-9197 (toll free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, please call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kuen S. Lu,





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October 26, 2007